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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/709,968

06/09/2004

Rong Huang

3967

7590

03/21/2006

RONG HUANG  
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EXAMINER

HUGHES, JAMES P

ART UNIT

PAPER NUMBER

2883

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

57

<b>Office Action Summary</b>	<b>Application No.</b> 10/709,968	<b>Applicant(s)</b> HUANG, RONG	
	<b>Examiner</b> James P. Hughes	<b>Art Unit</b> 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12-30-06.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the attachment means for moving vertically and tilting said platform relative to said sidewalls to align said opto-electric device to said optical components (see lines 7-9 of claim 1) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

2. Claims 11-14 are objected to for failing to particular particularly point out and distinctly claim the invention. Claim 1 recites a “means for attachment” (line 5) and “attachment means” (line 7). It is unclear from the claims and specification if these are the same or different attachment means. Claims 12-14 inherit the deficiencies of claim 11. If applicant intendeds these to be the same “means”, then perhaps line 7 should read – said attachment means –. However, this will still not be an adequate means-plus-function recitation as discussed below. It does not appear that applicant has support in the specification for a means plus function recitation in line 7 of claim, as best interpreted by the examiner.

***Response to Arguments***

Applicant's arguments filed December 30, 2005 have been fully considered but they are not persuasive. Respectfully, Applicant argues for the differences between the disclosed invention rather than the claimed invention and concludes with:

The new configuration (the platform is laterally attached to the sidewalls/or to the tops of TECS, whose bottoms are fixed on the sidewalls of a package) of opto-electronic package taught in this disclosure renders a new way to align the opto-electronic device inside the package and the optical connector outside the package. It is obviously not taught and can not be derived in prior art. For all of the above reasons, applicants submit that claims are in proper form, and that the claims all define patentably over the prior art. Therefore I submit that this application is now in condition for allowance, which action I respectfully solicit. (See page 2 of the remarks)

First, it is respectfully suggested that applicant focus arguments for patentably to the recited claimed invention rather than the disclosed invention because the claims are what define the meets and bounds of patent protection. Following, Applicant's arguments amount to a

Art Unit: 2883

general allegation that the disclosed invention defines a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Additionally, Applicant also cites MPEP 2173.02 and 707.07(j) and requests claim construction suggestions. The examiner has attempted to suggest clear language to the Applicant in the instant Office Action. However, such advice – including any potentially patentable subject matter – is not easily given as the prosecution history is unclear as to what the Applicant identifies as the invention. For example, Applicant appears to invoke 35 USC 112 6th paragraph “means plus function” claim recitations in the newly added claim 1. However, the invention has not been disclosed (e.g. the specification does not been written) in such a manner to allow the support needed for such claim language. Applicant is strongly suggested to consult a registered Patent Agent.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 11-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The recitation of the attachment means for moving vertically and tilting said platform relative to said sidewalls to align said opto-electric device to said optical components (lines 7-9

Art Unit: 2883

of claim 1) are not adequately supported. Claims 12-14 inherit the deficiencies of claim 11.

Such attachment means do not appear to be disclosed in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation of the attachment means for moving vertically and tilting said platform relative to said sidewalls to align said opto-electric device to said optical components (lines 7-9 of claim 1) are not adequately supported. There is not a corresponding disclosure of specific or materials that are not well-known, thus the claim fails to particularly point out and distinctly claim the invention (*Dosset*, 115 F. 3d at 946-47, 42 USPQ2d at 1884-85) See MPEP 2106. Claims 12-14 inherit the deficiencies of claim 11. It appears that Applicant is attempting to invoke a 35 USC 112 6th paragraph “means plus function” recitation. However, such means are not clearly disclosed in the specification.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



Art Unit: 2883

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimaoka et al. (5,195,155).

First, it is noted that the claims have been interpreted only to the degree possible in light of the claim rejection objections discussed above. Amongst other things, the second “means plush function” recitation of “the attachment means for moving vertically and tilting said platform relative to said sidewalls to align said opto-electric device to said optical components” (lines 7-9 of claim 1) is not properly supported by the specification and unclear as discussed above.

Shimaoka et al. (5,195,155), herein after referred to as “Shimaoka” teaches a package and method of packaging optoelectronic device comprising: a rectangular dual in-line package body (9) (comprising a base) – which may be hermetically sealed – with a plurality of electronic leads extending from the bottom of the package. Said package comprising four sidewalls, a thermal electrical cooler attachment means – TEC – (10) attached on one of the sidewalls wherein a side of a platform – wherein said platform has a photo diode (8) and a laser diode (3) – is attached to the top of the TEC (10). Additionally, the package body (9) has an optical connector (e.g. 19)

Art Unit: 2883

connected to one of its sidewalls. (See e.g. Col. 7, ll. 20-35; Col. 11, ll. 60 – Col. 12, ll. 30; Col. 21, ll. 10-55; and Figs. 20-21)

Shimaoka does not explicitly teach an attachment means for moving vertically and tilting said platform relative to said sidewalls to align said opto-electric device to said optical components. However, it is taught that various optical components may be positioned to inline with one another on and along the optical axis. (See e.g. col. 12, ll. 1-25) Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate means for moving vertically and tilting the platform to yield a more efficient device.

Regarding claim 12, Shimaoka does not explicitly teach that the TEC have a cold junction and a hot junction side where the hot side is attached to one of the sidewalls and the cold side attached to the platform. However, as TEC's inherently have cold and hot junction sides – for displacing heat – and Shimaoka employs the TEC to cool the platform and components placed on it, it would have been obvious – almost to the point of inherent – to employ such a hot and cold junction arrangement to yield efficient cooling.

Regarding claim 13; Shimaoka does not explicitly teach a butterfly packaging type – and therefore the top and bottom lids being free of connectors, leads, and mounting tabs. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to employ the cooling and/or alignment functions of Shimaoka in such a butterfly package because this would allow the device to be used in a wide variety of opto-electronic device systems.

Regarding claim 10; Shimaoka does not explicitly teach an RF connector on a sidewall of the package (9). However, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide an RF input/output connection in the device of Shimaoka



Art Unit: 2883

because this would provide an efficient means for sending or receiving electronic signals to the opto-electronic devices.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James P. Hughes whose telephone number is 571-272-2474. The examiner can normally be reached on Monday - Friday 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2883

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James P. Hughes  
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